

-62-

WHAT IS CLAIMED IS:

1. A method for encoding wide striped cells that carry packets of data across stripes, comprising:

(a) encoding an initial block of a first wide striped cell with initial cell encoding information; and

(b) distributing initial bytes of packet data into available space in the initial block of the first wide striped cell.

2. The method of claim 1, wherein said initial cell encoding information includes control information and state information, and said initial block of the first wide striped cell comprises five subblocks corresponding to five stripes, and wherein each subblock includes identical control information and identical state information.

3. The method of claim 1, further comprising adding reserve information to available bytes at the end of the initial block of the first wide striped cell.

4. The method of claim 1, further comprising distributing remaining bytes of packet data across one or more blocks in the first wide striped cell until an end of packet condition is reached or a maximum cell size is reached.

5. The method of claim 1, further comprising:

(c) encoding the first wide striped cell or another wide striped cell with end of packet information, the end of packet information varying depending upon a set of end of packet conditions including whether the end of packet occurs at the end of an initial block, at the end of the initial block, within a subsequent block, at a block boundary, or at a cell boundary.

6. The method of claim 1, wherein said initial block encoding step (a),

-63-

at the start of a packet, encodes an initial twenty byte block of a start wide striped cell having twenty bytes of data distributed across five stripes as follows:

Block	Stripe 1	Stripe 2	Stripe 3	Stripe 4	Stripe 5
1	K0 STATE DATA0 DATA1	K0 STATE DATA2 DATA3	K0 STATE DATA4 DATA5	K0 STATE DATA6 DATA7	K0 STATE RES RES

where, K0 is one byte representing a special control character indicative of a cell start, STATE is one byte of state information, DATA0-DATA7 represent eight bytes of payload data, and RES is one reserved byte.

7. The method of claim 1, wherein said encoding step (c) encodes the first wide striped cell or another wide striped cell with end of packet information that varies depending upon the degree to which data has filled a wide striped cell.

8. A system for encoding wide striped cells that carry packets of data across stripes, comprising:

- (a) means for encoding an initial block of a first wide striped cell with initial cell encoding information; and
- (b) means for distributing initial bytes of packet data into available space in the initial block of the first wide striped cell.

9. The system of claim 8, wherein said initial cell encoding information includes control information and state information, and said initial block of the first wide striped cell comprises five subblocks corresponding to five stripes, and wherein each subblock includes identical control information and identical state information.

-64-

10. The system of claim 8, further comprising means for adding reserve information to available bytes at the end of the initial block of the first wide striped cell.

11. The system of claim 8, further comprising means for distributing remaining bytes of packet data across one or more blocks in the first wide striped cell until an end of packet condition is reached or a maximum cell size is reached.

12. The system of claim 8, further comprising:

(c) means for encoding the first wide striped cell or another wide striped cell with end of packet information, the end of packet information varying depending upon a set of end of packet conditions including whether the end of packet occurs at the end of an initial block, at the end of the initial block, within a subsequent block, at a block boundary, or at a cell boundary.

13. The system of claim 8, wherein said initial block encoding means (a), at the start of a packet, encodes an initial twenty byte block of a start wide striped cell having twenty bytes of data distributed across five stripes as follows:

Block	Stripe 1	Stripe 2	Stripe 3	Stripe 4	Stripe 5
1	K0 STATE DATA0 DATA1	K0 STATE DATA2 DATA3	K0 STATE DATA4 DATA5	K0 STATE DATA6 DATA7	K0 STATE RES RES

where, K0 is one byte representing a special control character indicative of a cell start, STATE is one byte of state information, DATA0-DATA7 represent eight bytes of payload data, and RES is one reserved byte.

-65-

14. The system of claim 8, wherein said encoding means (c) encodes the first wide striped cell or another wide striped cell with end of packet information that varies depending upon the degree to which data has filled a wide striped cell.